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BUCKHORN
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REPORT OF CHERMES DAMAGE TO PACIFIC SILVER FIR NEAR VALSETZ, OREGON

By

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This report concerns an infestation of the balsam woolly aphid (Chermes sp.) on Pacific silver fir at the head of Warnick Creek (T7S; R8W; Sec. 15,16,17,18,20,21,22,28, and 29 W.M.).

On June 27, 1956, at the request of Mr. Morris Bergman, forester, Willamette Valley Lumber Company, K. H. Wright and the writer accompanied him in making a ground examination of the problem area. Mr. Bergman suggested that the heaviest centers of infestation might best be located from the air.

On July 3, 1956, three flights were made over the area. W. J. Buckhorn mapped the intensity and extent of the Chermes damage on a U.S.C.G.S. contour map. Messers Bergman, A. Fisher, and G. Bailey, of Willamette Valley Lumber Company, and Lee Hunt of the Bureau of Land Management flew with Buckhorn. The visibility at the time of the flights was poor due to heavy clouds and haze.

Approximately 2,430 acres of epidemic infestations were mapped during this survey (see attached map). In addition, 6 centers of timber windthrown during the winter of 1955-56 were detected. The intensity of the Chermes infestation was classified as follows:

Intensity	Acres
Very heavy	670
Heavy	650
Moderate	810
Light	300
Total	2,430

The infestation is in an isolated stand of mature and overmature Pacific silver fir, hemlock, and Douglas-fir. On the north, south, and west, it is bounded largely by cutover lands and on the east by the 1945 Black Rock Burn. Recent cruise figures show a volume of about 40 million board feet of silver fir in the drainage. Of this, about 25 million board feet is on Willamette Valley Lumber Company lands and the remaining 15 million board feet is on Crown-Zellerbach Corp., Long-Bell Lumber Co., Bureau of Land Management, State, and other ownerships. The area has a developed road system and the main centers of heavy and very heavy infestation can easily be salvaged from existing roads.

At present an estimated 20 percent of the silver fir in the stand has been killed by Chermes, and the remainder shows evidence of very heavy damage. A good number of the crowns examined were one-quarter to one-half defoliated and survival of many trees seems doubtful.

The branch-gouting form of Chermes was most prevalent on the area. A bole infestation was found on one small, suppressed silver fir. Adult females and newly laid eggs were the life stages present on this bole infestation.

Silver fir beetles (Pseudohylesinus spp.) were attacking a few of the trees weakened or killed by Chermes. This potential threat to the remaining green timber should be carefully watched to detect any major outbreak of these beetles.

Light Chermes damage has been present in this general vicinity since about 1953. However, the severity has increased to a point where heavy mortality has already occurred and additional mortality is expected. This situation requires immediate attention if volume losses are to be minimized since the silver fir deteriorates very rapidly after death.

Since no direct control measures against Chermes under forest conditions are known the drainage should be logged on a priority basis beginning at once in the areas of very heavy damage shown on the map.

Prompt salvage of windthrown timber is also recommended to protect the surrounding green timber from being killed by bark beetles emerging from the windthrown trees.

cc: Willamette Valley Lumber Co.
Crown-Zellerbach Corp.
Long-Bell Lumber Co.
Bureau of Land Management
U. S. Forest Service, Timber Management

2-cc. M. Compton 10/3/56